

REMARKS:

In the outstanding Office Action, the Examiner rejected claims 22-52. Claims 22, 25, 33 and 44 have been amended for clarification, and claims 1-21 stand cancelled. New claims 53-56 have been added. Thus, in view of the forgoing, claims 22-56 remain pending for which reconsideration is requested. No new matter has been added. The Examiner's rejections are traversed below.

Applicants recognize that the Examiner is not bound by decisions of foreign patent offices. However, for the Examiner's reference, the corresponding European application has issued as European Patent No. 1 192 736.

REJECTION UNDER 35 U.S.C. §103(a):

Claims 22-40 and 43-52 are rejected under 35 U.S.C. §103(a) as being unpatentable over Ahmed (U.S. Patent No. 5, 946,346) in view of Jiang et al. (U.S. Patent No. 6,535,723). Claims 41 and 42 are also rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of Ahmed, Jiang et al. and Rashid-Farrokhi (U.S. Patent No. 6,377,812). The rejection is traversed and reconsideration is requested.

Ahmed discusses a method for generating a power control command based on comparison of a measured quality value and a channel quality threshold.

Jiang et al. discusses a power control method by increasing or decreasing a transmitting power based on comparison of a target signal quality measurement within an outer loop and a target value.

The present invention is directed to method of controlling transmitting power where an inner loop effects a rapid transmitting power control and an outer control loop effects a slow transmitter power control.

According to Ahmed, a pilot signal and a traffic channel (TCH) signal are received via a subscriber antenna where the pilot signal is coupled to a pilot signal quality measurement circuit (element 70 in FIG. 3) and a quality value formed is passed to a comparator (element 80 in FIG. 3) (see, FIG. 3 and corresponding text of Ahmed). Then, the TCH signal is demodulated (element 71 in FIG. 3) and a quality value is determined (see, column 6, lines 38-40 of Ahmed), where an outer loop threshold (OLT) signal is determined from a table (element 86 in FIG. 3) using the TCH signal and is superposed by addition of the quality value of the TCH signal (see, column 6, line 65 through column 7, line 6 of Ahmed). The superposed value is transmitted to

an inner loop threshold (ILT), which is also connected on the output side with the comparator such that the power control command is formed based on the comparison (see, column 6, lines 17-24 of Ahmed). As shown in FIG. 3 of Ahmed, the inner loop is substantially formed by elements 70, 80 and 82 while the outer loop is substantially formed by elements 72, 86 and 88 (see also column 6, lines 17-64).

The Examiner acknowledges that the Ahmed reference does not teach enabling uplink from the subscriber station to the base station and downlink from the base station to the subscriber station, thus relies on Jiang et al. as teaching the same. According to Jiang et al., a mobile station determines a target signal quality measurement within an outer loop based on received base station signals (see, column 5, lines 20-29 of Jiang et al.). After the target is determined, it is passed to an inner loop for comparison with a target value "scale target". Based on this comparison, the mobile station transmits information indicating that transmission power should be increased or should be decreased (see, column 5, lines 33-47 of Jiang et al.).

In contrast, independent claim 1 of the present invention recites, a method for controlling transmitting power including "using an inner control loop to perform fast transmitting power control of at least one of a subscriber station and a base station so as to vary the transmitting power within a transmitting power interval" and "using the outer control loop to perform slow transmitting power control in the base station", where the transmitting power interval used by the inner control loop is defined or determined by the outer control loop for both the "uplink from the subscriber station to the base station and downlink from the base station to the subscriber station". This enables a transition control from a rapid to slow transmitting power to be performed, thereby allowing transmitting power control based on a speed of a mobile subscriber.

Therefore, it is respectfully submitted that independent claim 1 is patentable over the combination of Ahmed and Jiang et al. references.

For at least the above-mentioned reasons, claims depending from independent claim 1 are patentably distinguishable over the combination of Ahmed and Jiang et al. references. The dependent claims are also independently patentable. For example, as recited in claim 28 recites, "the transmitting power interval is dimensioned in dependence on a speed of the subscriber station". The combination of Ahmed and Jiang et al. references does not teach or suggest the transmitting power interval used by the inner control loop (independent claim 1) depends on "a speed of the subscriber station".

Therefore, withdrawal of the rejection is respectfully requested.

NEW CLAIMS:

New independent claim 53 is added to highlight that the present invention includes, "varying the transmitting power of a subscriber station and/or a base station using an inner control loop constructed for fast transmitting power control within a transmitting power interval predetermined by an outer control loop constructed for slow transmitting power control", where the transmitting power interval is defined in a base station system "using the outer control loop for both an uplink from the subscriber station to the base station and for a downlink from the base station to the subscriber station".

It is respectfully asserted that new independent claim 53 and dependent claims 54-56 are patentably distinguishable over the cited references.

CONCLUSION:

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

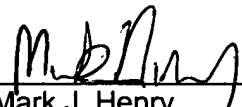
Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: Nov. 2, 2004

By: 
Mark J. Henry
Registration No. 36,162

1201 New York Avenue, NW, Suite 700
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501